SEQUENCE LISTING

<110> Inouye, Roger T.
       Torres-Viera, Carlos
       Moellering, Robert
       Gold, Howard
       Eliopoulos, George M.

<120> METHODS AND COMPOSITIONS FOR RESTORING ANTIBIOTIC
SUSCEPTIBILITY IN GLYCOPEPTIDE-RESISTANT ENTEROCOCCUS

<130> B00662.70036.US

<140> US 10/049,935
<141> 2000-08-11

<150> US 60/149,313
<151> 1999-08-17

<160> 39

<170> FastSEQ for Windows Version 3.0

<210> 1
<211> 10851
<212> DNA
<213> Enterococcus faecium

```
<400> 1
ggggtagcgt caggaaaatg cggatttaca acgctaagcc tattttcctg acgaatccct      60
cgtttttaac aacgttaaga aagtttttagt ggtcttaaag aatttaatga gactactttc     120
tctgagttaa aatggtattc tcctagtaaa ttaatatgtt cccaacctaa gggcgacata     180
tggtgtaaca aatcttcatt aaagctacct gtccgttttt tatattcaac tgctgttgtt     240
aggtggagag tattccaaat acttatagca ttgataatta tgtttaaagc actggctctt     300
tgcaattgat gctgtatggt gcgttctcta agctcacctt gttttccgaa gaaaatagct     360
cttgccaatc cattcatggc ttctccttta ttcaatcctc tttgtatttt tcttcttaat     420
gattcatccg atatataatt caaaataaag atcgtttttt ctattcggcc catctcacgt     480
aaggctgtag ctaagctgtt ttgtcttgaa taggaaccta gcttccccat aataagggat     540
gctgaaactg ttccctccct tatagaatga gctaatcgca aaacatcctc ataattttct     600
ttaatgacct ttgtatttat ttgtccacgt aaaatggctt ctagttttgg atactcactt     660
gctttatcta tcgtaaataa ttttgagtcc gataaatccc ttattcttgg ggcaaattta     720
aatcctaata aatgagtcag tccgaatatt tggtcagtgt aaccggcagt gtctgtataa     780
tgttcctcta tgtttagatc cgtctcatga tgtaacaaac catccaaaac atgaatcgca     840
tctcttgaat tagtatgaat aatctttgtg tagtaagaag agaattgatc acttgtaaat     900
cggtagatgg tggctccttt tccagttcca taatgtggat ttgcatctgc atgtagtgat     960
gaaacaccta gctgcattct cataccatct gacgaagatg ttgtaccgtc gccccaatag    1020
aaaggcaatt gtaatttatg atgaaagttt actaatatgg cttgggcttt attcatggca    1080
tcttcataca tgcgccattg agatacattg gctagttgct tatatgtaag tccgggtgtg    1140
gcttcggcca tcttgctcaa gccaatattc attcccattc ctaaaagggc agccatgata    1200
atgattgttt cttccttatc tggttttcga ttattggaag catgagtgaa ttgctcatga    1260
aatcctgtta tatgggccac atccatgagt aaatcagtta attttattct tggtagcatc    1320
tgataaaggc ttgcactaaa ttttttttgct tcttctggaa catctttttc taagcgtgca    1380
agtgatagct ttccttttttc aagagaaacc ccatctaact tattggaatt ggcagctaac    1440
cactttaacc tttcattaaa gctgctggtt ctctccgtta tataatcttc gaatgataaa    1500
ctaactgata atctcgtatt ccccttcgat tgattccatg tatcttccga aaacaaatat    1560
tcctcaaaat ccctatattg tctgctgcca acaatggaaa catctcctgc ccgaacatgc    1620
tcccgaagtt ctgttaaaac agccatttca tagtaatgac gattaattgt tgtaccatca    1680
tcctcgtata aatgtctttt ccatcgtttt gaaataaaat ccacaggtga gtcatcaggc    1740
acttttcgct ttccagattc gttcattcct cggataatct caacagcttg taaaagtggc    1800
tcatttgcct ttgtagaatg aaattccaat actcttaata gcgttggcgt atattttctt    1860
agtgaataaa accgtttttg cagtaagtct aaataatcat agtcggcagg acgtgcaagt    1920
tcctgagcct cttctactga agagacaaag gtattccatt caataaccga ttctaaaacc    1980
```

```
ttaaaaacgt ctaatttttc ctctcttgct ttaattaatg cttgtccgat gttcgtaaag   2040
tgtataactt tctccatttag ctttttaccg ttttgtttct ggatttcctc ttgagcctta   2100
cgaccttttg ataacaaact aagtatttgc ctatcatgaa tttcaaacgc tttatccgtt   2160
agctcctgag taagttgtaa taaatagatg gttaatatcg aataacgttt attttcttga   2220
aagtcacgga atgcatacgg ctcgtatctt gagcctaagc gagacagctg caacaggcgg   2280
ttacggtgca aatgactaat ttgcactgtt tctaaatcca ttcctcgtat gtattcgagt   2340
cgttctatta ttttttagaaa agtttcgggt gaaggatgac ccggtggctc ttttaaccaa   2400
cccaatatcg ttttattgga ttcggatgga tgctgcgagg taataatccc ttcaagcttt   2460
tcttttgct catttgttag agatttacta accgtattaa atagcttctt ttcagccatt   2520
gcccttgctt cccacaccat tctttcaagt gtagtgatag caggcagtat aattttgttt   2580
tttcttagaa aatctatgca ttcatgcagt agatgaatgg catcaccatt ttccaaagct   2640
aattgatgaa ggtacttaaa tgtcattcga tattcactca gggtaaaagt tacaaagtcg   2700
tattcacttc gaatttcttt caaatgatcc caaagtgtat tttccctttg aggataatga   2760
tcaagcgagg atggactaac accaatctgt ttcgatatat attgtatgac cgaatctggg   2820
atgctttga tatgagtgta tggccaaccg ggataccgaa gaacagctaa ttgaacagca   2880
aatcctaaac ggtttttcttc cctccttcgc ttattaacta tttctaaatc ccgtttggaa   2940
aaagtgaagt aggtcccccag tatccattca tcttcaggga tttgcataaa agcctgtctc   3000
tgttccggtg taagcaattc tctacctctc gcaattttca ttcagtatca ttccatttct   3060
gtattttcaa tttattagtt caattatata tcaatagagt gtactctatt gatacaaatg   3180
tagtagactg ataaaatcat agttaagagc gtctcataag acttgtctca aaaatgaggt   3180
gatattttgc ggaaaatcgg ttatattcgt gtcagttcga ctaaccagaa tccttcaaga   3240
caatttcagc agttgaacga gatcggaatg gatattatat atgaagagaa agtttcagga   3300
gcaacaaagg atcgcgagca acttcaaaaa gtgttagacg atttacagga agatgacatc   3360
atttatgtta cagacttaac tcgaatcact cgtagtacac aagatctatt tgaattaatc   3420
gataacatac gagataaaaa ggcaagttta aaatcactaa aagatacatg gcttgattta   3480
tcagaagata atccatacag ccaattctta attactgtaa tggctggtgt taaccaatta   3540
gagcgagatc ttattcggat gagacaacgt gaagggattg aattggctaa gaaagaagga   3600
aagtttaaag gtcgattaaa gaagtatcat aaaaatcacg caggaatgaa ttatgcggta   3660
aagctatata aagaaggaaa tatgactgta aatcaaattt gtgaaattac taatgtatct   3720
agggcttcat tatacaggaa attatcagaa gtgaataatt agccattctg tattccgcta   3780
atgggcaata ttttttaaaga agaaaaggaa actataaaat attaacagcc tcctagcgat   3840
gccgaaaagc cctttgataa aaaaagaatc atcatcttaa gaaattctta gtcatttatt   3900
atgtaaatgc ttataaattc ggccctataa tctgataaat tattaagggc aaacttatgt   3960
gaaagggtga taactatgag cgataaaata cttattgtgg atgatgaaca tgaaattgcc   4020
gatttggttg aattatactt aaaaaacgag aattatacgg ttttcaaata ctataccgcc   4080
aaagaagcat tggaatgtat agacaagtct gagattgacc ttgccatatt ggacatcatg   4140
cttcccggca caagcggcct tactatctgt caaaaaataa gggacaagca cacctatccg   4200
attatcatgc tgaccgggaa agatacagag gtagataaaa ttacagggtt aacaatcggc   4260
gcggatgatt atataacgaa gccctttcgc ccactggagt taattgctcg ggtaaaggcc   4320
cagttgcgcc gatacaaaaa attcagtgga gtaaaggagc agaacgaaaa tgttatcgtc   4380
cactccggcc ttgtcattaa tgttaacacc catgagtgtt atctgaacga gaagcagtta   4440
tcccttactc ccaccgagtt ttcaatactg cgaatcctct gtgaaaacaa ggggaatgtg   4500
gttagctccg agctgctatt tcatgagata tggggcgacg aatatttcag caagagcaac   4560
aacaccatca ccgtgcatat ccggcatttg cgcgaaaaaa tgaacgacac cattgataat   4620
ccgaaatata taaaaacggt atggggggtt ggttataaaa ttgaaaaata aaaaaaacga   4680
ctattccaaa ctagaacgaa aactttacat gtatatcgtt gcaattgttg tggtagcaat   4740
tgtattcgtg ttgtatattc gttcaatgat ccgagggaaa cttggggatt ggatcttaag   4800
tattttggaa aacaaatatg acttaaatca cctggacgcg atgaaattat atcaatattc   4860
catacggaac aatatagata tctttatttta tgtggcgatt gtcattagta ttcttattct   4920
atgtcgcgtc atgctttcaa aattcgcaaa atactttgac gagataaata ccggcattga   4980
tgtacttatt cagaacgaag ataaacaaat tgagctttct gcggaaatgg atgttatgga   5040
acaaaagctc aacacattaa aacggactct ggaaaagcga gagcaggatg caaagctggc   5100
cgaacaaaga aaaaatgacg ttgttatgta cttggcgcac gatattaaaa cgcccttac   5160
atccattatc ggttatttga gcctgcttga cgaggctcca gacatgccgg tagatcaaaa   5220
ggcaaagtat gtgcatatca cgttggacaa agcgtatcga ctcgaacagc taatcgacga   5280
gtttttttgag attacacggt ataacctaca aacgataacg ctaacaaaaa cgcacataga   5340
cctatactat atgctggtgc agatgaccga tgaattttat cctcagcttt ccgcacatgg   5400
aaaacaggcg gttattcacg ccccccgagga tctgaccgtg tccggcgacc ctgataaact   5460
cgcgagagtc tttaacaaca ttttgaaaaa cgccgctgca tacagtgagg ataacagcat   5520
cattgacatt accgcgggcc tctccgggga tgtggtgtca atcgaattca agaacactgg   5580
aagcatccca aaagataagc tagctgccat atttgaaaag ttctataggc tggacaatgc   5640
tcgttcttcc gatacgggtg gcgcgggact tggattggcg attgcaaaag aaattattgt   5700
```

```
tcagcatgga gggcagattt acgcggaaag caatgataac tatacgacgt ttagggtaga    5760
gcttccagcg atgccagact tggttgataa aaggaggtcc taagagatgt atataatttt    5820
ttaggaaaat ctcaaggtta tctttacttt ttcttaggaa attaacaatt taatattaag    5880
aaacggctcg ttcttacacg gtagacttaa taccgtaaga acgagccgtt ttcgttcttc    5940
agagaaagat ttgacaagat taccattggc atccccgttt tatttggtgc ctttcacaga    6000
aagggttggt cttaattatg aataacatcg gcattactgt ttatggatgt gagcaggatg    6060
aggcagatgc attccatgct ctttcgcctc gctttggcgt tatggcaacg ataattaacg    6120
ccaacgtgtc ggaatccaac gccaaatccg cgcctttcaa tcaatgtatc agtgtgggac    6180
ataaatcaga gatttccgcc tctattcttc ttgcgctgaa gagagccggt gtgaaatata    6240
tttctacccg aagcatcggc tgcaatcata tagatacaac tgctgctaag agaatgggca    6300
tcactgtcga caatgtggcg tactcgccgg atagcgttgc cgattatact atgatgctaa    6360
ttcttatggc agtacgcaac gtaaaatcga ttgtgcgctc tgtggaaaaa catgatttca    6420
ggttggacag cgaccgtggc aaggtactca gcgacatgac agttggtgtg gtgggaacgg    6480
gccagatagg caaagcggtt attgagcggc tgcgaggatt tggatgtaaa gtgttggctt    6540
atagtcgcag ccgaagtata gaggtaaact atgtaccgtt tgatgagttg ctgcaaaata    6600
gcgatatcgt tacgcttcat gtgccgctca atacggatac gcactatatt atcagccacg    6660
aacaaataca gagaatgaag caaggagcat ttcttatcaa tactgggcgc ggtccacttg    6720
tagataccta tgagttggtt aaagcattag aaaacgggaa actgggcggt gccgcattgg    6780
atgtattgga aggagaggaa gagtttttct actctgattg cacccaaaaa ccaattgata    6840
atcaattttt acttaaactt caaagaatgc ctaacgtgat aatcacaccg catacggcct    6900
attataccga gcaagcgttg cgtgataccg ttgaaaaaac cattaaaaac tgtttggatt    6960
ttgaaaggag acaggagcat gaatagaata aaagttgcaa tactgtttgg gggttgctca    7020
gaggagcatg acgtatcggt aaaatctgca atagagatag ccgctaacat taataaagaa    7080
aaatacgagc cgttatacat tggaattacg aaatctggtg tatggaaaat gtgcgaaaaa    7140
ccttgcgcgg aatgggaaaa cgacaattgc tattcagctg tactctcgcc ggataaaaaa    7200
atgcacggat tacttgttaa aaagaaccat gaatatgaaa tcaaccatgt tgatgtagca    7260
ttttcagctt tgcatggcaa gtcaggtgaa gatggatcca tacaaggtct gtttgaattg    7320
tccggtatcc cttttgtagg ctgcgatatt caaagctcag caatttgtat ggacaaatcg    7380
ttgacataca tcgttgcgaa aaatgctggg atagctactc ccgccttttg ggttattaat    7440
aaagatgata ggccggtggc agctacgttt acctatcctg ttttttgttaa gccggcgcgt    7500
tcaggctcat ccttcggtgt gaaaaaagtc aatagcgcgg acgaattgga ctacgcaatt    7560
gaatcggcaa gacaatatga cagcaaaatc ttaattgagc aggctgtttc gggctgtgag    7620
gtcggttgtg cggtattggg aaacagtgcc gcgttagttg ttggcgaggt ggaccaaatc    7680
aggctgcagt acggaatctt tcgtattcat caggaagtcg agccggaaaa aggctctgaa    7740
aacgcagtta taaccgttcc cgcagacctt tcagcagagg agcgaggacg gatacaggaa    7800
acggcaaaaa aaatatataa agcgctcggc tgtagaggtc tagcccgtgt ggatatgttt    7860
ttacaagata acggccgcat tgtactgaac gaagtcaata ctctgcccgg tttcacgtca    7920
tacagtcgtt atccccgtat gatggccgct gcaggtattg cacttcccga actgattgac    7980
cgcttgatcg tattagcgtt aaaggggtga taagcatgga aataggattt acttttttag    8040
atgaaatagt acacggtgtt cgttgggacg ctaaatatgc cacttgggat aatttcaccg    8100
gaaaaccggt tgacggttat gaagtaaatc gcattgtagg gacatacgag ttggctgaat    8160
cgcttttgaa ggcaaaagaa ctggctgcta cccaagggta cggattgctt ctatgggacg    8220
gttaccgtcc taagcgtgct gtaaactgtt ttatgcaatg ggctgcacag ccggaaaata    8280
acctgacaaa ggaaagttat tatcccaata ttgaccgaac tgagatgatt tcaaaaggat    8340
acgtggcttc aaaatcaagc catagccgcg gcagtgccat tgatcttacg ctttatcgat    8400
tagacacggg tgagcttgta ccaatgggga gccgatttga ttttatggat gaacgctctc    8460
atcatgcggc aaatggaata tcatgcaatg aagcgcaaaa tcgcagacgt ttgcgctcca    8520
tcatggaaaa cagtgggttt gaagcatata gcctcgaatg gtggcactat gtattaagag    8580
acgaaccata ccccaatagc tattttgatt tccccgttaa ataaactttt aaccgttgca    8640
cggacaaact atataagcta actctttcgg caggaaaccc gacgtatgta actggttctt    8700
agggaattta tatatagtag atagtattga agatgtaagg cagagcgata ttgcggtcat    8760
tatctgcgtg cgctgcggca agatagcctg ataataagac tgatcgcata gaggggtggt    8820
atttcacacc gcccattgtc aacaggcagt tcagcctcgt taaattcagc atgggtatca    8880
cttatgaaaa ttcatctaca ttggtgataa tagtaaatcc agtagggcga ataattgac    8940
tgtaatttac ggggcaaaac ggcacaatct caaacgagat tgtgccgttt aaggggaaga    9000
ttctagaaat atttcatact tccaactata tagttaagga ggagactgaa aatgaagaag    9060
ttgttttttt tattgttatt gttattctta atatacttag gttatgacta cgttaatgaa    9120
gcactgtttt ctcaggaaaa agtcgaattt caaaattatg atcaaaatcc caaagaacat    9180
ttagaaaata gtgggacttc tgaaaatacc caagagaaaa caattacaga agaacaggtt    9240
tatcaaggaa atctgctatt aatcaatagt aaatatcctg ttcgccaaga aagtgtgaag    9300
tcagatatcg tgaatttatc taaacatgac gaattaataa atggatacgg gttgcttgat    9360
agtaatattt atatgtcaaa agaaatagca caaaaatttt cagagatggt caatgatgct    9420
```

```
gtaaagggtg gcgttagtca ttttattatt aatagtggct atcgagactt tgatgagcaa    9480
agtgtgcttt accaagaaat gggggctgag tatgccttac cagcaggtta tagtgagcat    9540
aattcaggtt tatcactaga tgtaggatca agcttgacga aaatggaacg agcccctgaa    9600
ggaaagtgga tagaagaaaa tgcttggaaa tacgggttca ttttacgtta tccagaggac    9660
aaaacagagt taacaggaat tcaatatgaa ccatggcata ttcgctatgt tggtttacca    9720
catagtgcga ttatgaaaga aaagaatttc gttctcgagg aatatatgga ttacctaaaa    9780
gaagaaaaaa ccatttctgt tagtgtaaat ggggaaaaat atgagatctt ttattatcct    9840
gttactaaaa ataccaccat tcatgtgccg actaatcttc gttatgagat atcaggaaac    9900
aatatagacg gtgtaattgt gacagtgttt cccggatcaa cacatactaa ttcaaggagg    9960
taaggatggc ggaatgaaac caacgaaatt aatgaacagc attattgtac tagcactttt   10020
ggggtaacgt tagcttttta atttaaaacc cacgttaact aggacattgc tatactaatg   10080
atacaactta aacaaagaa ttagaggaaa ttatattggg aaaaatatta tctagaggat    10140
tgctagcttt atatttagtg acactaatct ggttagtgtt attcaaatta caatacaata   10200
ttttatcagt atttaattat catcaaagaa gtcttaactt gactccattt actgctactg   10260
ggaatttcag agagatgata gataatgtta taatctttat tccatttggc ttgctttttga   10320
atgtcaattt taaagaaatc ggattttttac ctaagtttgc ttttgtactg gttttaagtc   10380
ttactttttga aataattcaa tttatcttcg ctattggagc gacagacata acagatgtaa   10440
ttacaaatac tgttggaggc tttcttggac tgaaattata tggtttaagc aataagcata   10500
tgaatcaaaa aaaattagac agagttatta ttttgtagg tatactttttg ctcgtattat    10560
tgctcgttta ccgtacccat ttaagaataa attacgtgta agatgtctaa atcaagcaat   10620
ctgatctttc atacacataa agatattgaa tgaattggat tagatggaaa acgggatgtg   10680
gggaaactcg cccgtaggtg tgaagtgagg ggaaaaccgg tgataaagta aaaagcttac   10740
ctaacactat agtaacaaag aaagcccaat tatcaatttt agtgctgagg aattggtctc   10800
tttaataaat ttccttaacg ttgtaaatcc gcattttcct gacggtaccc c            10851
```

```
<210> 2
<211> 7160
<212> DNA
<213> Enterococcus faecalis

<400> 2
tttaaacggt atatttcgga agaactgtgg aaacggctta tctctgtaaa atggggcatt      60
acagggcgtt gggtacaaaa gctctgcgat ggacgattaa aatccgaaaa gaaatcgctt     120
tgaaactaca gggaaactac agactgttat gttatcttct taaatggagg gatttttatg     180
tcgatacgaa ttctacttgt cgaggatgat gatcatatct gcaatacagt aagggcgttt     240
ttggctgaag caagatatga ggtggatgcc tgcacagatg gaaacgaagc acacaccaag     300
ttctatgaaa acacctatca actggttatt cttgatatta tgctgcccgg tatgaatggg     360
catgaacttc tacgtgaatt tcgggcgcaa aatgataccc ccattctgat gatgacagcc     420
ctgtcggatg acgaaaacca aatccgggcg tttgatgcag aggcagacga ctatgtaaca     480
aagccattca agatgcggat tttactaaag cgggtggaag ccctgttacg gcgcagcggt     540
gcgctggcaa aggaatttcg tgtgggcagg ctgacacttc tgccggagga ttttagggta     600
cttttgtgacg gtacggagct gcccctgaca cgaaagaat ttgaaatcct tttgctgctg    660
gtgcagaaca aaggcagaac cttaacccat gaaatcattt tgtcccgcat atggggatat     720
gactttgacg gtgatggcag cacagtccac actcatatca aaaatctgcg ggcgaagctg     780
ccggaaaata tcatcaaaac catccgcggt gtaggttacc gattggagga atcattataa     840
tggaaagaaa agggatttttc attaaggttt tttcctatac gatcattgtc ctgttactgc     900
ttgtcggtgt aacggcaaca ctgtttgcac agcaatttgt gtcttatttc agagcgatgg     960
aagcacagca aacagtaaaa tcctatcagc cattggtgga actgattcag aatagcgata    1020
ggcttgatat gcaagaggtg gcagggctgt ttcactacaa taaccaatcc tttgagtttt    1080
atattgaaga taaagaggga agcgtactct atgccacacc gaatgccgat acatcaaata    1140
gtgttaggcc cgactttctt tatgtggtac atagagatga taatatttcg attgttgctc    1200
aaagcaaggc aggtgtggga ttgctttatc aagggctgac aattcgggga attgttatga    1260
ttgcgataat ggttgtattc agccttttat gcgcgtatat ctttgcgcgg caaatgacaa    1320
cgccgatcaa agccttagcg gacagtgcga ataaaatggc aaacctgaaa gaagtaccgc    1380
cgccgctgga gcgaaaggat gagcttggcg cactggctca cgacatgcat tccatgtata    1440
tcaggctgaa agaaaccatc gcaaggctgg aggatgaaat cgcaagggaa catgagttgg    1500
aggaaacaca gcgatatttc tttgcggcag cctctcatga gttaaaaacg cccatcgcgg    1560
ctgtaagcgt tctgttggag ggaatgcttg aaaatatcgg tgactacaaa gaccattcta   1620
agtatctgcg cgaatgcatc aaaatgatgg acaggcaggg caaaaccatt ccgaaatac     1680
tggagcttgt cagcctgaac gatgggagaa tcgtacccat agccgaaccg ctggacatag   1740
```

```
ggcgcacggt tgccgagctg ctacccgatt ttcaaacctt ggcagaggca aacaaccagc    1800
ggttcgtcac agatattcca gccggacaaa ttgtcctgtc cgatccgaag ctgatccaaa    1860
aggcgctatc caatgtcata ttgaatgcgg ttcagaacac gccccaggga ggtgaggtac    1920
ggatatggag tgagcctggg gctgaaaaat accgtctttc cgttttgaac atgggcgttc    1980
acattgatga tactgcactt tcaaagctgt tcatcccatt ctatcgcatt gatcaggcgc    2040
gaagcagaaa aagtgggcga agcggtttgg ggcttgccat cgtacaaaaa acgctggatg    2100
ccatgagcct ccaatatgcg ctggaaaaca cctcagatgg cgttttgttc tggctggatt    2160
taccgcccac atcaacacta taaatattta aaacttaaat gattttgacc gacaggtata    2220
accctgccgg tcttttttgtt tttcgccgct acaggaaaac tacagattga ctacagggaa    2280
agtacagata cgcttgccat aataacaatc gtaccagcca caaatcgtag ttttattgca    2340
aaggaggcat tcaatcaaat ggaaaaaagc aactatcatt ccaatgtgaa tcatcacaaa    2400
cggcatatga aacaatctgg ggaaaaacgg gcttttctat gggcgttcat tatctcgttc    2460
acagtctgca cgctgttttt ggggtggaga ttggtttccg tattggaggc aacacagcta    2520
ccgcccatcc ctgcaactca tacaggcagc gggactggtg tagcggagaa tccagaggaa    2580
aacactcttg ccaccgccaa agaacaggga gatgaacagg aatggagcct gattttagtg    2640
aacaggcaga accccatccc cgcccagtac gatgtggaac ttgagcagct gtcaaatggt    2700
gagcggatag acattcggat ttctccctac ctccaggatt tgtttgatgc cgcaagagct    2760
gatggagttt acccgattgt cgcatccgga taccggacaa cagaaaaaca gcaagaaatc    2820
atggatgaaa aagtcgccga atacaaggcg aaaggctaca cctctgcaca ggctaaagcg    2880
gaagcagaaa cttgggtggc cgtgccggga acaagcgagc atcagcttgg tcttgctgtg    2940
gatatcaatg cggatggaat tcattcaacc ggcaacgagg tttacagatg gctggatgaa    3000
aacagctatc gctttggttt tattcgccgc tacccgccag acaagacaga gataaccggt    3060
gtgagcaacg agccgtggca ttaccgatat gtcggcatcg aagctgccac aaagatatac    3120
caccaagggc tttgccttga ggaatattta aacacagaaa aatgagaaaa ggatataatg    3180
ctatgaacag aaaaagattg acacagcgct tcccgttcct gcttccaatg agacaagcgc    3240
agagaaaaat atgctttat gcgggaatga gatttgacgg ctgttgctat gcacagacga    3300
taggagaaaa aacgcttccc tatttgctct ttgaaacgga ttgtgcgtta tacaaccaca    3360
ataccggatt tgacatgata taccaagaaa acaaggtgtt caacttaaag ctggcggcaa    3420
agaccttaaa cggcctattg ataaaaccgg gggaaacctt ttctttctgg cggctggtac    3480
gccatgcgga caaagatacc ccctataaag acggccttac ggtggccaat ggtaagctca    3540
ccaccatgtc gggcggcggt atgtgccaga tgagcaattt actattttgg gtgttcctgc    3600
atacgccatt gacaattatc cagcgcagcg gtcacgtagt aaaggagttt ccagagccaa    3660
acagtgacga gatcaaaggg gtggatgcaa ccatctcaga gggctggatt gatttaaaag    3720
tgcgaaacga taccgactgc acctaccaaa tatgggtgac cctagatgat gagaaaatca    3780
tcggtcaggt gttcgccgac aaacagcctc aagcattata caaaattgca aacggcagta    3840
ttcagtatgt ccgtgaaagt ggcgggattt atgaatatgc caaggttgaa cggatgcaag    3900
ttgccttagg taccggggaa ataatagatt gcaagctgct ttatacaaac aaatgcaaaa    3960
tctgctatcc cctcccggaa agtgtggata ttcaggaggc gaaccaatga gaaaaagtat    4020
gggcattact gtttttggat gcgagcagga tgaggcaaat gctttccgca ccttatcacc    4080
agattttcat attatcccta cgctgatcag tgatgcgata tcggcagaca acgcaaaatt    4140
ggccgctggc aatcaatgca ttagcgtagg ccataagtcc gaggtttccg aggcgacaat    4200
tcttgcgctg agaaaggtcg gggtaaaata catttctacc cgcagcatcg gctgcaatca    4260
cattgatacg actgccgccg agagaatggg gatctcggtt ggcacagttg cgtattcgcc    4320
ggacagcgtt gcggattatg ctttgatgct gatgctgatg gccatacggg gtgcaaagtc    4380
caccatacac gccgtggcgc aacaaaattt cagactggat tgtgtccggg ggaaagagct    4440
gcgggatatg actgtgggag ttattggaac cggccatata gggcaagcgg tcgtcaaaag    4500
gctgcgggga tttggatgcc gtgtgctagc ctatgataac agccgaaaaa ttgaggcaga    4560
ttatgtccag cttgatgagc ttctaaaaaa cagcgatatt gttacgctcc atgtgccgct    4620
ttgtgcggat acccgccatc tgatcggcca gagcgaaatc ggagagatga agcaaggcgc    4680
attttttaatc aacactgggc gcggggcgct tgtcgatacc gggtcgctgg tggaggcact    4740
gggaagcgga aagctgggcg gtgcggcact ggatgtgttg gagggcgagg atcagtttgt    4800
ttataccgac tgctcgcaga aagtgcttga ccatccttt ttgtcgcagc tcctaaggat    4860
gccaaatgtg atcatcacac cccatacggc gtactacacc gagcgtgtgc tgcgagatac    4920
cacagaaaaa acaatcagga attgtcttaa ctttgaaagg agtttacagc atgaataaaa    4980
taaaagtcgc aattatcttc ggcggttgct cggaggaaca tgatgtgtcg gtaaaatccg    5040
caatagaaat tgctgcgaac attaatactg aaaaattcga tccgcactac atcggaatta    5100
caaaaaacgg cgtatggaag ctatgcaaga gccatgtac ggaatgggaa gccgatagtc    5160
tccccgccat attctccccg gataggaaaa cgcatggtct gcttgtcatg aaagaaagag    5220
aatacgaaac tcggcgtatt gacgtggctt ccccggtttt gcatggcaaa tgcggggagg    5280
atggtgcgat acagggtctg tttgaattgt ctggtatccc ctatgtaggc tgcgatattc    5340
aaagctccgc agcttgcatg gacaaatcac tggcctacat tcttacaaaa aatgcgggca    5400
tcgccgtccc cgaatttcaa atgattgaaa aaggtgacaa accggaggcg aggacgctta    5460
```

```
cctaccctgt ctttgtgaag ccggcacggt caggttcgtc ctttggcgta accaaagtaa      5520
acagtacgga agaactaaac gctgcgatag aagcagcagg acaatatgat ggaaaaatct      5580
taattgagca agcgatttcg ggctgtgagg tcggctgcgc ggtcatggga aacgaggatg      5640
atttgattgt cggcgaagtg gatcaaatcc ggttgagcca cggtatcttc cgcatccatc      5700
aggaaaacga gccggaaaaa ggctcagaga atgcgatgat tatcgttcca gcagacattc      5760
cggtcgagga acgaaatcgg gtgcaagaaa cggcaaagaa agtatatcgg gtgcttggat      5820
gcagagggct tgctcgtgtt gatctttttt tgcaggagga tggcggcatc gttctaaacg      5880
aggtcaatac cctgcccggt tttacatcgt acagccgcta tccacgcatg gcggctgccg      5940
caggaatcac gcttcccgca ctaattgaca gcctgattac attggcgata gagaggtgac      6000
ccgtatggaa aatggttttt tgtttttaga tgaaatgttg catggtgttc gttgggatgc      6060
caagtacgct acatgggata acttcacggg aaaaccagtg gatgggtatg aggtgaatcg      6120
catcatcggc acaaaggccg tggcgcttgc tctgcgcgaa gcacaaatcc atgcggcacg      6180
ccttggctac ggcttgcttt tatgggatgg atatcggcca aaatctgcgg tggactgttt      6240
cctgcgttgg gcggcgcagc cggaggacaa cctcacaaaa gaaaaatatt accccaatat      6300
tgagcgagcc gagttgatta caaagggcta tgtggcctca caatccagcc atagccgtgg      6360
aagcacaatt gatcttacgc tctaccactt ggatacaggg gaacttgttt caatgggaag      6420
caacttcgat tttatggacg aacggtcgca ccatacagca aaagggatag ggaatgcaga      6480
ggcacaaaat cgaagatgct tgcgtaaaat catggaaagc agcggatttc agtcctatcg      6540
ctttgaatgg tggcactata agttgattga tgagccatac cccgatacct attttaattt      6600
tgctgtttca taatgaaagt atttgatttt ctaattatgt ataagttggc tacaaattac      6660
ttagtatttc atcagaccaa ttactctctt gtttacagaa aaattctgcg ctgatggaat      6720
ctgctttatt atgcgggcga aaaatgaaat tgaccatatt ttttcagaac tttactctgt      6780
accgaattgc ctgcaaaagc cttattttaa gctgaaagtt caggaattgc ttttgttttt      6840
gtgtatgccc ctcgtgattt gtacacctat cttaattggc tttgcaattc tcattccgta      6900
tctctgcttt aagaatttgg aaaaacgaag cattgtgaat cggctgcggg cagagcaaaa      6960
agagaaccag cagaaacaag tcgttcttgc tctgctgatt cactcggaac tgtttgattc      7020
gggttttcgt tgaaggtcaa gtagctgctc tgtcaggaag tccagtgtgt tcagcagaat      7080
ctgctgattg tcacggttgc atgactgaaa ttttcccatg aaacgctgga gttcttcatc      7140
ctcaatagag tttgaagctt                                                  7160
```

```
<210> 3
<211> 1086
<212> DNA
<213> Enterococcus casseliflavus
```

```
<400> 3
gtaagaatcg gaaaagcgga aggaagaaaa acatgaaaaa aatcgccatt attttttggag      60
gcaattcacc ggaatacacc gtttctttag cttcagcaac tagcgcaatc gaagcactcc      120
aatcatctcc ctatgactac gacctctctt tgatcgggat cgccccagat gctatggatt      180
ggtacttgta tacaggagaa ctggaaaaca tccgacaaga cacgtggttg ttggatacga      240
aacataaaca gaaaatacag ccgctattcg aaggaaacgg cttttggcta agtgaagagc      300
agcaaacgtt ggtacctgat gttttatttc ccattatgca tggcaaatac ggggaagatg      360
gcagtatcca aggattgttt gaattgatga agctgcctta tgtaggctgc ggggtggcag      420
gttctgcctt atgtatgaac aaatggctgc tgcatcaagc tgcagcagcc attggcgtac      480
aaagtgctcc tacgattctc ttgacaaatc aagccaacca gcaagaacaa atcgaagctt      540
ttatccagac ccatggcttc ccagttttct ttaagcctaa tgaagcgggc tcctcaaaag      600
ggatcactaa agtcacctgc gttgaagaaa tcgcttctgc cttaaaagaa gcctttactt      660
attgttccgc agtgctccta caaaaaaata ttgccggtgt tgagatcggt tgcggtattt      720
tgggcaacga ctctttgact gtcggtgctt gtgacgccat ttcattagta gacggctttt      780
tcgattttga agaaaagtac cagctgatca gcgccaaaat caccgtccct cgcgccattgc     840
ctgaaacgat tgaaaccaag gtcaaagaac aagctcagct gctctatcgt agtcttggtc      900
ttaaaggtct tgctcgcatc gacttttttg tcacggagcg aggagaacta tacttgaatg      960
aaatcaatac tatgccgggc tttacgagtc actcccgcta tcctgccatg atggcagcgg      1020
tcggcttatc ctatcaagaa ctactacaaa aactgcttgt cttagcaaag gaggaagtca      1080
aatgag                                                                 1086
```

```
<210> 4
<211> 5781
<212> DNA
<213> Enterococcus faecium
```

```
     <400> 4
attaatctgc attgttgttt catatcgatt ttgacacata ataaagacag attatcgcaa      60
tgtaaggagt aatgcaatga atgaaaaaat cttagtggtt gatgatgaaa aagaattggc     120
cgacttagtt gaagtatatc tgaaaaacga tggatatacc gtttataaat tttataatgg     180
caaggatgca ctaaagtgta ttgaatccgt ggaactggat ttagccatat tggatatcat     240
gcttccggat gtagacgggt ttcagatctg ccagaaaatc cgggaaaagt tttacttccc     300
tgttatcatg ctgacagcaa aagtggagga cggggataaa atcatgggac tgtccgtggc     360
ggatgattat attacaaagc cgtttaaccc gctggaagtg gttgcgagag taaaggcgca     420
gctgcggcag tacatgcggt acaagcagcc cagcttaaag caggaggctg aatgcacaga     480
atacgatatc agagggatga caatcagcaa gagcagccat aagtgtatcc tgtttggaaa     540
ggagattcag ctgacgccaa cggagttttc gattctttgg tatctgtgcg agcgtcaggg     600
tacggttgtt tctacggagg aattatttga ggcagtatgg ggtgaacggt tttttgacag     660
caataatact gtgatggcgc atatcgggcg gctccgggag aaaatgaagg aaccgtcaag     720
aaatccgaaa tttataaaaa ctgtgtgggg agtgggatat accattgaaa aatagaaata     780
aaaccagtca tgaagatgac tatttacttt ttaaaaacag attgtccgtt aaaatactgc     840
ttatgatggt atattccatt ctgattattg cgggtgttta tctgtttatc ttaaaagata     900
attttgcaaa tgtcgtggta gccattttag acagctttat ctatcatgat cgggatgagg     960
cggtggctgt ttatctgaga acctttaagg cgtctgagat atggcttttc ctgatagcgg    1020
ttatgggcgt gtttttttatg atcttccgcc gttatctgga cagtatttca aaatattta    1080
aggagatcaa ccggggggatc gatactttgg tgaatgagga tgccaacgat attgggctgc    1140
ctccggagtt ggcttcgacc gaaagaaaaa tcaattccat acggcatacc ctgacgaaac    1200
ggaaaacgga cgctgagctt gcagagcaaa ggaaaaacga tcttgtcatg tatctggccc    1260
atgacctgaa gaccccgctt ccatcggtca taggatattt gaacctgtta agggatgaga    1320
atcagatttc cgaggaactt agggaaaaat atttgtccat atcattggat aaggctgagc    1380
gtctggaaga actgattaat gagtttttttg aaattacgag gtttaatctt tcaaacatca    1440
cgcttgtgta cagcaaaatc aatctgacga tgatgctgga acagctgggg tatgagttta    1500
agccgatgct ggccgggaaa aatctgaaat gtgaatttga tgttcagcca gacatgatgc    1560
tgtcctgcga tgccaacaag ctgcagcggg tcttcgataa tgtgctgaga aatgccgtca    1620
gctactgcta tgagaatacc accattcggg tgaaagccag gcagaccgaa gaccatgtac    1680
tcatcaaaat cataaacgaa ggggatacga ttcctgggga gagattggaa agaatctttg    1740
agcagtttta ccgcctggat gtatctcgaa gctcaagtac cggcggggcc ggtctggggc    1800
ttgccattgc aaaagagatt gtggaactgc accatggaca gatcactgcc cacagcgaaa    1860
atggtatcac cagttttgag gttacattgc ccgtcgtagg aaaatcgtaa gaaattccga    1920
gataaaccgt gtgttatcca taaagaacg cgaaaacata aatcgctcta ttctggtatg    1980
ctttatatca ggaggggcga ttttttttgct ttcagaaagg agttcagggt aatgatggaa    2040
tatcaaaaca ataatggaaa ctatgacaaa aggaatcgta gaaaagccaa aaaaagaaaa    2100
ttgcttttttt acagggctgc atgtgtcaca ctttgtttgc tcattgtttc tgtaatcttt    2160
ggagttgtgc attttttttagg ggagagtaaa gatcccggcc ttttatccaa agaaaacaca    2220
aaaacagaca agaactattc gtggcttacc gacgatcaga atgaggcagt accctcagtt    2280
ccagagccag ccatatccga ccaggctaac aaaattcggg taaatatcac agcggcaaac    2340
gccattgtaa tgaataaaga cacaaatgag gtattgtacc agaaaaaaag cacagccaaa    2400
attgcgccgg ccagcactgc taagatgatt atggctttga cagcacttga ctattgttcc    2460
ccggaggatg aaatgaaagt aggtgcggag attggaatga ttcaaagcga ttcgtcaacc    2520
gcatggctta tgaagggtga tacactgact gtcagacagc tcctgattgc ccttatgctt    2580
ccgtccggca atgatgcagc ctataccctt gcagtcaata ccggaaaggc tattgcaggt    2640
gataacagcc tgaccagtca gcaagcgatt gaagtattca tggataaggt aaatgaaaaa    2700
gccgtggccc ttggcgccac aaactcgaaa tttgtagctc cggatggata tgatgccgaa    2760
gggcagtata ctacagctta tgaccttgct atcattgcaa aagcatgttt ggacaatcct    2820
atcatttcgg agattgtagc gagttattca tcctatgaaa aatggtcaaa cggaagagag    2880
gtcacttaca acaattccaa tgagcttctc gatccgaaca gtccctatta ccgtccggag    2940
gttatcggtt tgaaaacagg aaccagcagt cttggcggcg catgtattgt ttctgcagcg    3000
gtgatggacg gagaaaccta tatctgtgta gttatgggtt ctacaaagga aagcaggttt    3060
caggacagcg ttgatatttt agataaaatc aaagcccagt aacgagataa ggaggaaatg    3120
aatggagaaa ataatagaca taactgtttt tggctgcgag ccagacgaaa tggaggtttt    3180
tcaaaagatt tcttatgagc ttggtgttac agccacactc ataaaagatt ctatatcaga    3240
aagcaatgct ggattagcta atggatgccg gtgtgtaagc gtaagccata aagcggagct    3300
atcagaaccg attcttcttg cgctaaaaaa tgcaggggta aaatatatca gtacccggag    3360
cattggtttt aaccatattg atatacaggc ggctgggtta ctgggtatgg ttgttggcac    3420
agtagaatac tcgccgggaa gtgtggccga ttataccgtc atgctgatgc ttatgctgat    3480
gcgtggcaca aagtcgattc tgcgtgaaac ccagaggcag aattattgcc tgaatgacct    3540
gcgcggaaaa gaactgcggg atatgaccgt gggtgtgtta ggaactgggc gaatcggaca    3600
```

```
ggcagtcatg gagcgcctgg agggattcgg ttgtaaggta ttggcgtatg accgaaatca    3660
aaaagcagga gcagactatg tttcgtttca tgaactgctg aaaaaaagtg acattgttac    3720
actgcatatc ccgttggcgg aggatacccg ccatatgatt ggctatgaag agctggaaat    3780
gatgaaggaa gaggcgcttc tgatcaatac agggcggggc gctttagtgg ataccgcagc    3840
attggtagaa gcattaaaag gacagaaaat cggcggcgcc ctggatgttt tggaaggcga    3900
agaaggtatc ttttaccatg actgcaccca aagaagaata gaacatcctt tcctgtcggt    3960
cctgcaggga atgccgaatg tcattgttac gccgcacaca gcctatcata cggaacgggt    4020
gttggttgac acggtcagaa atactattag aaattgtttg aattttgaaa ggagtctggg    4080
aaatgtttag aattaaagtt gcagttctgt ttgggggctg ttcagaggaa cataatgttt    4140
cgataaaatc tgcgatggag attgccgcaa acatagatac aaaaaaatat cagccttatt    4200
atattggaat cacaaaatcc ggcgtttgga aaatgtgtga aaaaccttgt ttggagtggg    4260
aacaatatgc gggggatccg gttgttttt cgccggacag aagtacgcat ggtctgctga    4320
tacaaaaaga caaagggtat gaaatccagc ctgtggatgt ggtgtttccg atgattcatg    4380
gcaagtttgg ggaggatggc tccatacaag gcttgcttga attgtcaggc attccgtatg    4440
tgggatgcga tattcaaagc tccgtgatct gcatggataa ggcgcttgca tataccgttg    4500
tgaaaaatgc gggtatcact gtgcctgggt tccggatcct tcaggagggg gatcgcctgg    4560
aaacggagga tttcgtatat cccgtttttg taaagcctgc ccgttccggc tcatcctttg    4620
gcgtaaacaa ggtatgcaag gcagaagaac tgcaggcagc aatcgaagaa gcaagaaat    4680
atgacagcaa gatttgatt gaagaggccg ttaccgggag tgaggtaggc tgcgccatac    4740
tgggaaacgg aaatgatctc atggctggcg aggtggatca gattgagctg agacacggct    4800
tttttaagat tcatcaggaa gcacagccgg agaagggatc tgaaaatgca gtcatccgag    4860
ttccagccgc cttaccggat gaggtaagag aacagattca ggaaacggca atgaagattt    4920
accggatact tggctgcaga ggattggccc gcattgacct gttttttgcgg gaggacggtt    4980
gcattgtgct gaatgaagtg aataccatgc caggttttac ttcctacagc cgctatcccc    5040
gcatgatgac agcagccggt tttacgcttt ctgaaatact ggatcgcttg attgaacttt    5100
cacttaggag gtaactgtca tgaaaaagaa ctttgccttt ttagatgaaa tgattcccgg    5160
gatccgatgg gatgccaaat atgccacctg ggacaatttc accgggaaac cggtagacgg    5220
atacatggta aaccgtgtta tgggaacgaa ggagctggga gttgctttgc gtaaggctca    5280
gaagatggcg gagaagctag gatatggttt gctcttatgg gacggctatc gcccccagtg    5340
cgcagtgaat tgttttctga attgggcttc ccaaccggaa gacaatctga cgaaaaagcg    5400
ttactatcca aatatcaaaa ggaatgagat ggttgcgaag gggtatgtgg cctcacaatc    5460
cagccacagc cgtggaagta cggttgacct tacaatttt catttgaata gcggtatgct    5520
tgttcctatg ggtggagatt ttgactttat ggatgaacgg tcacaccatg ccgcaagcgg    5580
tctgagcgaa gaagaatcaa aaaaccggca gtgcttgcgt tatatcatgg agagtagcgg    5640
atttgaagcc tatcgttatg aatggtggca ttacgtcttg cgggacgagc catacccgga    5700
tacatatttt gatttttgca ttgcctagtg agagcctgaa gaaatgaaaa atgtaagatt    5760
ataaggacaa gcggcatgag g                                              5781
```

        <210> 5
        <211> 27
        <212> DNA
        <213> Enterococcus faecium

        <400> 5

```
ggtggcgcgg gacttggatg gcgattg                                         27
```

        <210> 6
        <211> 30
        <212> DNA
        <213> Enterococcus faecium

        <400> 6

```
ggcgcggatg attatataac gaagcccttt                                      30
```

        <210> 7
        <211> 18
        <212> DNA
        <213> Enterococcus faecium

        <400> 7

cgagccggaa aaaggctc   18

      \<210> 8
      \<211> 20
      \<212> DNA
      \<213> Enterococcus faecium

      \<400> 8   20
ggctgcgata ttcaaagctc

      \<210> 9
      \<211> 27
      \<212> DNA
      \<213> Enterococcus faecium

      \<400> 9   27
attactgttt atggatgtga gcaggat

      \<210> 10
      \<211> 26
      \<212> DNA
      \<213> Enterococcus faecium

      \<400> 10   26
gtggcttcaa aatcaagcca tagccg

      \<210> 11
      \<211> 18
      \<212> DNA
      \<213> Enterococcus casseliflavus

      \<400> 11   18
cgagccggaa aaaggctc

      \<210> 12
      \<211> 20
      \<212> DNA
      \<213> Enterococcus casseliflavus

      \<400> 12   20
ggctgcgata ttcaaagctc

      \<210> 13
      \<211> 20
      \<212> DNA
      \<213> Enterococcus faecium

      \<400> 13   20
ggctgcgata ttcaaagctc

      \<210> 14
      \<211> 30
      \<212> DNA
      \<213> Enterococcus faecium

      \<400> 14   30
cuacuacuac uacgaattca agaacactgg

      \<210> 15
      \<211> 36
      \<212> DNA
      \<213> Enterococcus faecium

<400> 15

caucaucauc auccaaccct ttctgtgaaa ggcacc   36

<210> 16
<211> 38
<212> DNA
<213> Enterococcus faecium

<400> 16

cuacuacuac uactcgaggc ttatcacccc tttaacgc   38

<210> 17
<211> 32
<212> DNA
<213> Enterococcus faecium

<400> 17

caucaucauc auggagacag gagcatgaat ag   32

<210> 18
<211> 696
<212> DNA
<213> Enterococcus faecium

<400> 18

```
atgagcgata aaatacttat tgtggatgat gaacatgaaa ttgccgattt ggttgaatta      60
tacttaaaaa acgagaatta tacggttttc aaatactata ccgccaaaga agcattggaa     120
tgtatagaca agtctgagat tgaccttgcc atattggaca tcatgcttcc cggcacaagc     180
ggccttacta tctgtcaaaa aataagggac aagcacacct atccgattat catgctgacc     240
gggaaagata cagaggtaga taaaattaca gggttaacaa tcggcgcgga tgattatata     300
acgaagccct ttcgcccact ggagttaatt gctcgggtaa aggcccagtt gcgccgatac     360
aaaaaattca gtggagtaaa ggagcagaac gaaaatgtta tcgtccactc cggccttgtc     420
attaatgtta acacccatga gtgttatctg aacgagaagc agttatccct tactcccacc     480
gagttttcaa tactgcgaat cctctgtgaa aacaagggga atgtggttag ctccgagctg     540
ctatttcatg agatatgggg cgacgaatat ttcagcaaga gcaacaacac catcaccgtg     600
catatccggc atttgcgcga aaaaatgaac gacaccattg ataatccgaa atatataaaa     660
acggtatggg gggttggtta taaaattgaa aaataa                               696
```

<210> 19
<211> 1155
<212> DNA
<213> Enterococcus faecium

<400> 19

```
ttggttataa aattgaaaaa taaaaaaaac gactattcca aactagaacg aaaactttac      60
atgtatatcg ttgcaattgt tgtggtagca attgtattcg tgttgtatat tcgttcaatg     120
atccgaggga aacttgggga ttggatctta agtattttgg aaaacaaata tgacttaaat     180
cacctggacg cgatgaaatt atatcaatat tccatacgga acaatataga tatctttatt     240
tatgtggcga ttgtcattag tattcttatt ctatgtcgcg tcatgctttc aaaattcgca     300
aaatactttg acgagataaa taccggcatt gatgtactta ttcagaacga agataaacaa     360
attgagcttt ctgcggaaat ggatgttatg gaacaaaagc tcaacacatt aaaacggact     420
ctggaaaagc gagagcagga tgcaaagctg gccgaacaaa gaaaaaatga cgttgttatg     480
tacttggcgc acgatattaa aacgcccctt acatccatta tcggttattt gagcctgctt     540
gacgaggctc cagacatgcc ggtagatcaa aaggcaaagt atgtgcatat cacgttggac     600
aaagcgtatc gactcgaaca gctaatcgac gagttttttg agattacacg gtataaccta     660
caaacgataa cgctaacaaa aacgcacata gacctatact atatgctggt gcagatgacc     720
gatgaatttt atcctcagct ttccgcacat ggaaaacagg cggttattca cgcccccgag     780
gatctgaccg tgtccggcga ccctgataaa ctcgcgagag tctttaacaa cattttgaaa     840
aacgccgctg catacagtga ggataacagc atcattgaca ttaccgcggg cctctccggg     900
gatgtggtgt caatcgaatt caagaacact ggaagcatcc caaaagataa gctagctgcc     960
atatttgaaa agttctatag gctggacaat gctcgttctt ccgatacggg tggcgcggga    1020
```

```
cttggattgg cgattgcaaa agaaattatt gttcagcatg gagggcagat ttacgcggaa    1080
agcaatgata actatacgac gtttagggta gagcttccag cgatgccaga cttggttgat    1140
aaaaggaggt cctaa                                                      1155
```

```
        <210> 20
        <211> 969
        <212> DNA
        <213> Enterococcus faecium


        <400> 20
atgaataaca tcggcattac tgtttatgga tgtgagcagg atgaggcaga tgcattccat     60
gctctttcgc ctcgctttgg cgttatggca acgataatta acgccaacgt gtcggaatcc    120
aacgccaaat ccgcgccttt caatcaatgt atcagtgtgg gacataaatc agagatttcc    180
gcctctattc ttcttgcgct gaagagagcc ggtgtgaaat atatttctac ccgaagcatc    240
ggctgcaatc atatagatac aactgctgct aagagaatgg gcatcactgt cgacaatgtg    300
gcgtactcgc cggatagcgt tgccgattat actatgatgc taattcttat ggcagtacgc    360
aacgtaaaat cgattgtgcg ctctgtggaa aaacatgatt tcaggttgga cagcgaccgt    420
ggcaaggtac tcagcgacat gacagttggt gtggtgggaa cgggccagat aggcaaagcg    480
gttattgagc ggctgcgagg atttggatgt aaagtgttgg cttatagtcg cagccgaagt    540
atagaggtaa actatgtacc gtttgatgag ttgctgcaaa atagcgatat cgttacgctt    600
catgtgccgc tcaatacgga tacgcactat attatcagcc acgaacaaat acagagaatg    660
aagcaaggag catttcttat caatactggg cgcggtccac ttgtagatac ctatgagttg    720
gttaaagcat tagaaaacgg gaaactgggc ggtgccgcat ggatgtatt ggaaggagag     780
gaagagtttt tctactctga ttgcacccaa aaaccaattg ataatcaatt tttacttaaa    840
cttcaaagaa tgcctaacgt gataatcaca ccgcatacgg cctattatac cgagcaagcg    900
ttgcgtgata ccgttgaaaa aaccattaaa aactgtttgg attttgaaag gagacaggag    960
catgaatag                                                            969
```

```
        <210> 21
        <211> 1032
        <212> DNA
        <213> Enterococcus faecium


        <400> 21
atgaatagaa taaaagttgc aatactgttt gggggttgct cagaggagca tgacgtatcg     60
gtaaaatctg caatagagat agccgctaac attaataaag aaaaatacga gccgttatac    120
attggaatta cgaaatctgg tgtatggaaa atgtgcgaaa aaccttgcgc ggaatgggaa    180
aacgacaatt gctattcagc tgtactctcg ccggataaaa aaatgcacgg attacttgtt    240
aaaaagaacc atgaatatga aatcaaccat gttgatgtag cattttcagc tttgcatggc    300
aagtcaggtg aagatggatc catacaaggt ctgtttgaat tgtccggtat cccttttgta    360
ggctgcgata ttcaaagctc agcaatttgt atggacaaat cgttgacata catcgttgcg    420
aaaaatgctg ggatagctac tcccgccttt tgggttatta ataaagatga taggccggtg    480
gcagctacgt ttacctatcc tgtttttgtt aagccggcgc gttcaggctc atccttcggt    540
gtgaaaaaag tcaatagcgc ggacgaattg gactacgcaa ttgaatcggc aagacaatat    600
gacagcaaaa tcttaattga gcaggctgtt tcgggctgtg aggtcggttg tgcggtattg    660
ggaaacagtg ccgcgttagt tgttggcgag gtggaccaaa tcaggctgca gtacggaatc    720
tttcgtattc atcaggaagt cgagccggaa aaaggctctg aaaacgcagt tataaccgtt    780
cccgcagacc tttcagcaga ggagcgagga cggatacagg aaacggcaaa aaaaatatat    840
aaagcgctcg gctgtagagg tctagcccgt gtggatatgt ttttacaaga taacggccgc    900
attgtactga cgaagtcaa tactctgccc ggtttcacgt catacagtcg ttatccccgt     960
atgatggccg ctgcaggtat tgcacttccc gaactgattg accgcttgat cgtattagcg    1020
ttaaaggggt ga                                                        1032
```

```
        <210> 22
        <211> 609
        <212> DNA
        <213> Enterococcus faecium


        <400> 22
atggaaatag gatttacttt tttagatgaa atagtacacg gtgttcgttg ggacgctaaa     60
tatgccactt gggataattt caccggaaaa ccggttgacg gttatgaagt aaatcgcatt    120
gtagggacat acgagttggc tgaatcgctt ttgaaggcaa aagaactggc tgctacccaa    180
```

```
gggtacggat tgcttctatg ggacggttac cgtcctaagc gtgctgtaaa ctgttttatg    240
caatgggctg cacagccgga aaataacctg acaaaggaaa gttattatcc caatattgac    300
cgaactgaga tgatttcaaa aggatacgtg gcttcaaaat caagccatag ccgcggcagt    360
gccattgatc ttacgcttta tcgattagac acgggtgagc ttgtaccaat ggggagccga    420
tttgattta tggatgaacg ctctcatcat gcggcaaatg gaatatcatg caatgaagcg    480
caaaatcgca gacgtttgcg ctccatcatg gaaaacagtg ggtttgaagc atatagcctc    540
gaatggtggc actatgtatt aagagacgaa ccataccca atagctattt tgatttcccc    600
                                                                      609
gttaaataa
```

```
        <210> 23
        <211> 912
        <212> DNA
        <213> Enterococcus faecium
```

```
        <400> 23
atgaagaagt tgtttttttt attgttattg ttattcttaa tatacttagg ttatgactac     60
gttaatgaag cactgttttc tcaggaaaaa gtcgaattc aaaattatga tcaaaatccc    120
aaagaacatt tagaaaatag tgggacttct gaaaataccc aagagaaaac aattacagaa    180
gaacaggttt atcaaggaaa tctgctatta atcaatagta aatatcctgt tcgccaagaa    240
agtgtgaagt cagatatcgt gaatttatct aaacatgacg aattaataaa tggatacggg    300
ttgcttgata gtaatattta tatgtcaaaa gaaatagcac aaaaatttc agagatggtc    360
aatgatgctg taaagggtgg cgttagtcat tttattatta atagtggcta tcgagacttt    420
gatgagcaaa gtgtgcttta ccaagaaatg ggggctgagt atgccttacc agcaggttat    480
agtgagcata attcaggttt atcactagat gtaggatcaa gcttgacgaa aatggaacga    540
gcccctgaag gaaagtggat agaagaaaat gcttggaaat acgggttcat tttacgttat    600
ccagaggaca aaacagagtt aacaggaatt caatatgaac catggcatat tcgctatgtt    660
ggtttaccac atagtgcgat tatgaaagaa aagaatttcg ttctcgagga atatatggat    720
tacctaaaag aagaaaaaac catttctgtt agtgtaaatg gggaaaaata tgagatcttt    780
tattatcctg ttactaaaaa taccaccatt catgtgccga ctaatcttcg ttatgagata    840
tcaggaaaca atatagacgg tgtaattgtg acagtgtttc ccggatcaac acatactaat    900
                                                                      912
tcaaggaggt aa
```

```
        <210> 24
        <211> 486
        <212> DNA
        <213> Enterococcus faecium
```

```
        <400> 24
ttgggaaaaa tattatctag aggattgcta gctttatatt tagtgacact aatctggtta     60
gtgttattca aattacaata caatatttta tcagtattta attatcatca aagaagtctt    120
aacttgactc catttactgc tactgggaat ttcagagaga tgatagataa tgttataatc    180
tttattccat ttggcttgct tttgaatgtc aattttaaag aaatcggatt tttacctaag    240
tttgcttttg tactggtttt aagtcttact tttgaaataa ttcaatttat cttcgctatt    300
ggagcgacag acataacaga tgtaattaca aatactgttg gaggctttct tggactgaaa    360
ttatatggtt taagcaataa gcatatgaat caaaaaaat tagacagagt tattattttt    420
gtaggtatac ttttgctcgt attattgctc gttaccgta cccatttaag aataaattac    480
                                                                      486
gtgtaa
```

```
        <210> 25
        <211> 19
        <212> DNA
        <213> Enterococcus faecium
```

```
        <400> 25
cgaataccgc aagcgacag                                                   19
```

```
        <210> 26
        <211> 663
        <212> DNA
        <213> Enterococcus faecium
```

```
        <400> 26
```

```
atgtcgatac gaattctact tgtcgaggat gatgatcata tctgcaatac agtaagggcg        60
tttttggctg aagcaagata tgaggtggat gcctgcacag atggaaacga agcacacacc       120
aagttctatg aaaacaccta tcaactggtt attcttgata ttatgctgcc cggtatgaat       180
gggcatgaac ttctacgtga atttcgggcg caaaatgata cccccattct gatgatgaca       240
gccctgtcgg atgacgaaaa ccaaatccgg gcgtttgatg cagaggcaga cgactatgta       300
acaaagccat tcaagatgcg gattttacta aagcgggtgg aagccctgtt acggcgcagc       360
ggtgcgctgg caaaggaatt tcgtgtgggc aggctgacac ttctgccgga ggattttagg       420
gtactttgtg acggtacgga gctgcccctg acacgaaaag aatttgaaat ccttttgctg       480
ctggtgcaga acaaaggcag aaccttaacc catgaaatca ttttgtcccg catatgggga       540
tatgactttg acggtgatgg cagcacagtc cacactcata tcaaaaatct gcgggcgaag       600
ctgccggaaa atatcatcaa aaccatccgc ggtgtaggtt accgattgga ggaatcatta       660
                                                                        663
taa
```

```
<210> 27
<211> 1344
<212> DNA
<213> Enterococcus faecium
```

```
<400> 27
atggaaagaa aagggatttt cattaaggtt ttttcctata cgatcattgt cctgttactg        60
cttgtcggtg taacggcaac actgtttgca cagcaatttg tgtcttattt cagagcgatg       120
gaagcacagc aaacagtaaa atcctatcag ccattggtgg aactgattca gaatagcgat       180
aggcttgata tgcaagaggt ggcagggctg tttcactaca ataaccaatc ctttgagttt       240
tatattgaag ataaagaggg aagcgtactc tatgccacac cgaatgccga tacatcaaat       300
agtgttaggc ccgactttct ttatgtggta catagagatg ataatatttc gattgttgct       360
caaagcaagg caggtgtggg attgctttat caagggctga caattcgggg aattgttatg       420
attgcgataa tggttgtatt cagccttta tgcgcgtata tctttgcgcg gcaaatgaca       480
acgccgatca aagccttagc ggacagtgcg aataaaatgg caaacctgaa agaagtaccg       540
ccgccgctgg agcgaaagga tgagcttggc gcactggctc acgacatgca ttccatgtat       600
atcaggctga agaaaccat cgcaaggctg gaggatgaaa tcgcaaggga acatgagttg       660
gaggaaacac agcgatatg ctttgcggca gcctctcatg agttaaaaac gcccatcgcg       720
gctgtaagcg ttctgttgga gggaatgctt gaaaatatcg gtgactacaa agaccattct       780
aagtatctgc gcgaatgcat caaaatgatg gacaggcagg gcaaaaccat ttccgaaata       840
ctggagcttg tcagcctgaa cgatgggaga atcgtaccca tagccgaacc gctggacata       900
gggcgcacgg ttgccgagct gctacccgat tttcaaacct tggcagaggc aaacaaccag       960
cggttcgtca cagatattcc agccggacaa attgtcctgt ccgatccgaa gctgatccaa      1020
aaggcgctat ccaatgtcat attgaatgcg gttcagaaca cgccccaggg aggtgaggta      1080
cggatatgga gtgagcctgg ggctgaaaaa taccgtcttt ccgttttgaa catgggcgtt      1140
cacattgatg atactgcact ttcaaagctg ttcatcccat tctatcgcat tgatcaggcg      1200
cgaagcagaa aaagtgggcg aagcggtttg gggcttgcca tcgtacaaaa aacgctggat      1260
gccatgagcc tccaatatgc gctggaaaac acctcagatg cgtttttgtt ctggctggat      1320
                                                                       1344
ttaccgccca catcaacact ataa
```

```
<210> 28
<211> 807
<212> DNA
<213> Enterococcus faecium
```

```
<400> 28
atggaaaaaa gcaactatca ttccaatgtg aatcatcaca aacggcatat gaaacaatct        60
ggggaaaaac gggcttttct atgggcgttc attatctcgt tcacagtctg cacgctgttt       120
ttggggtgga gattggtttc cgtattggag gcaacacagc taccgcccat ccctgcaact       180
catacaggca gcgggactgg tgtagcggag aatccagagg aaaacactct tgccaccgcc       240
aaagaacagg gagatgaaca ggacttgagcag ctgtcaaatg gtgagcggat agacattcgg       300
atttctccct acctccagga tttgtttgat gccgcaagag ctgatggagt ttacccgatt       420
gtcgcatccg gataccggac aacagaaaaa cagcaagaaa tcatggatga aaaagtcgcc       480
gaatacaagg cgaaaggcta cacctctgca caggctaaag cggaagcaga aacttgggtg       540
gccgtgccgg aacaagcga gcatcagctt ggtcttgctg tggatatcaa tgcggatgga       600
attcattcaa ccggcaacga ggtttacaga tggctggatg aaaacagcta tcgctttggt       660
tttattcgcc gctacccgcc agacaagaca gagataaccg gtgtgagcaa cgagccgtgg       720
cattaccgat atgtcggcat cgaagctgcc acaaagatat accaccaagg gctttgcctt       780
```

gaggaatatt taaacacaga aaaatga

<210> 29
<211> 972
<212> DNA
<213> Enterococcus faecium

<400> 29

```
atgagaaaaa gtatgggcat tactgttttt ggatgcgagc aggatgaggc aaatgctttc    60
cgcaccttat caccagattt tcatattatc cctacgctga tcagtgatgc gatatcggca   120
gacaacgcaa aattggccgc tggcaatcaa tgcattagcg taggccataa gtccgaggtt   180
tccgaggcga caattcttgc gctgagaaag gtcggggtaa aatacatttc tacccgcagc   240
atcggctgca atcacattga tacgactgcc gccgagagaa tggggatctc ggttggcaca   300
gttgcgtatt cgccggacag cgttgcggat tatgctttga tgctgatgct gatggccata   360
cggggtgcaa agtccaccat acacgccgtg gcgcaacaaa atttcagact ggattgtgtc   420
cgggggaaag agctgcggga tatgactgtg ggagttattg gaaccggcca tatagggcaa   480
gcggtcgtca aaaggctgcg gggatttgga tgccgtgtgc tagcctatga taacagccga   540
aaaattgagg cagattatgt ccagcttgat gagcttctaa aaaacagcga tattgttacg   600
ctccatgtgc cgctttgtgc ggatacccgc catctgatcg gccagagcga aatcggagag   660
atgaagcaag gcgcattttt aatcaacact gggcgcgggg cgcttgtcga taccgggtcg   720
ctggtggagg cactgggaag cggaaagctg ggcggtgcgg cactggatgt gttggagggc   780
gaggatcagt ttgtttatac cgactgctcg cagaaagtgc ttgaccatcc cttttttgtcg   840
cagctcctaa ggatgccaaa tgtgatcatc acaccccata cggcgtacta caccgagcgt   900
gtgctgcgag ataccacaga aaaaacaatc aggaattgtc ttaactttga aaggagttta   960
cagcatgaat aa                                                       972
```

<210> 30
<211> 1029
<212> DNA
<213> Enterococcus faecium

<400> 30

```
atgaataaaa taaaagtcgc aattatcttc ggcggttgct cggaggaaca tgatgtgtcg    60
gtaaaatccg caatagaaat tgctgcgaac attaatactg aaaaattcga tccgcactac   120
atcggaatta caaaaaacgg cgtatggaag ctatgcaaga agccatgtac ggaatgggaa   180
gccgatagtc tccccgccat attctcccg gataggaaaa cgcatggtct gcttgtcatg   240
aaagaaagag aatacgaaac tcggcgtatt gacgtggctt cccggttttt gcatggcaaa   300
tgcggggagg atggtgcgat acagggtctg tttgaattgt ctggtatccc ctatgtaggc   360
tgcgatattc aaagctccgc agcttgcatg gacaaatcac tggcctacat tcttacaaaa   420
aatgcgggca tcgccgtccc cgaatttcaa atgattgaaa aaggtgacaa accggaggcg   480
aggacgctta cctaccctgt ctttgtgaag ccggcacggt caggttcgtc ctttggcgta   540
accaaagtaa acagtacgga agaactaaac gctgcgatag aagcagcagg acaatatgat   600
ggaaaaatct taattgagca agcgatttcg ggctgtgagg tcggctgcgc ggtcatggga   660
aacgaggatg atttgattgt cggcgaagtg gatcaaatcc ggttgagcca cggtatcttc   720
cgcatccatc aggaaaacga gccggaaaaa ggctcagaga atgcgatgat tatcgttcca   780
gcagacattc cggtcgagga acgaaatcgg gtgcaagaaa cggcaaagaa agtatatcgg   840
gtgcttggat gcagagggct tgctcgtgtt gatctttttt tgcaggagga tggcggcatc   900
gttctaaacg aggtcaatac cctgcccggt tttacatcgt acagccgcta tccacgcatg   960
gcggctgccg caggaatcac gcttcccgca ctaattgaca gcctgattac attggcgata  1020
gagaggtga                                                         1029
```

<210> 31
<211> 609
<212> DNA
<213> Enterococcus faecium

<400> 31

```
atggaaaatg gttttttgtt tttagatgaa atgttgcatg gtgttcgttg ggatgccaag    60
tacgctacat gggataactt cacggaaaaa ccagtggatg ggtatgaggt gaatcgcatc   120
atcggcacaa aggccgtggc gcttgctctg cgcgaagcac aaatccatgc ggcacgcctt   180
ggctacggct tgcttttatg ggatggatat cggccaaaat ctgcggtgga ctgtttcctg   240
cgttgggcgg cgcagccgga ggacaacctc acaaaagaaa atattacccc caatattgag   300
```

```
cgagccgagt tgattacaaa gggctatgtg gcctcacaat ccagccatag ccgtggaagc    360
acaattgatc ttacgctcta ccacttggat acaggggaac ttgtttcaat gggaagcaac    420
ttcgatttta tggacgaacg tcgcaccat acagcaaaag ggatagggaa tgcagaggca     480
caaaatcgaa gatgcttgcg taaaatcatg gaaagcagcg gatttcagtc ctatcgcttt    540
gaatggtggc actataagtt gattgatgag ccataccccg atacctattt taattttgct    600
                                                                     609
gtttcataa
```

```
        <210> 32
        <211> 828
        <212> DNA
        <213> Enterococcus faecium


        <400> 32
atgaacagaa aaagattgac acagcgcttc ccgttcctgc ttccaatgag acaagcgcag    60
agaaaaatat gcttttatgc gggaatgaga tttgacggct gttgctatgc acagacgata   120
ggagaaaaaa cgcttcccta tttgctcttt gaaacggatt gtgcgttata caaccacaat   180
accggatttg acatgatata ccaagaaaac aaggtgttca acttaaagct ggcggcaaag   240
accttaaacg gcctattgat aaaaccgggg gaaacctttt ctttctggcg gctggtacgc   300
catgcggaca aagatacccc ctataaagac ggccttacgg tggccaatgg taagctcacc   360
accatgtcgg gcggcggtat gtgccagatg agcaatttac tattttgggt gttcctgcat   420
acgccattga caattatcca gcgcagcggt cacgtagtaa aggagtttcc agagccaaac   480
agtgacgaga tcaaaggggt ggatgcaacc atctcagagg ctggattga tttaaaagtg    540
cgaaacgata ccgactgcac ctaccaaata tgggtgaccc tagatgatga gaaaatcatc   600
ggtcaggtgt tcgccgacaa acagcctcaa gcattataca aaattgcaaa cggcagtatt   660
cagtatgtcc gtgaaagtgg cgggatttat gaatatgcca aggttgaacg gatgcaagtt   720
gccttaggta ccggggaaat aatagattgc aagctgcttt atacaaacaa atgcaaaatc   780
tgctatcccc tcccggaaag tgtggatatt caggaggcga accaatga                828
```

```
        <210> 33
        <211> 1053
        <212> DNA
        <213> Enterococcus casseliflavus


        <400> 33
atgaaaaaaa tcgccattat ttttggaggc aattcaccgg aatacaccgt ttctttagct    60
tcagcaacta gcgcaatcga agcactccaa tcatctccct atgactacga ccctctcttg   120
atcgggatcg ccccagatgc tatggattgg tacttgtata caggagaact ggaaaacatc   180
cgacaagaca cgtggttgtt ggatacgaaa cataaacaga aaatacagcc gctattcgaa   240
ggaaacggct tttggctaag tgaagagcag caaacgttgg tacctgatgt tttatttccc   300
attatgcatg gcaaatacgg ggaagatggc agtatccaag gattgtttga attgatgaag   360
ctgccttatg taggctgcgg ggtggcaggt tctgccttat gtatgaacaa atggctgctg   420
catcaagctg cagcagccat tggcgtacaa agtgctccta cgattctctt gacaaatcaa   480
gccaaccagc aagaacaaat cgaagctttt atccagaccc atggcttccc agttttcttt   540
aagcctaatg aagcgggctc ctcaaaaggg atcactaaag tcacctgcgt tgaagaaatc   600
gcttctgcct aaaagaagc ctttacttat tgttccgcag tgctcctaca aaaaaatatt    660
gccggtgttg agatcggttg cggtattttg ggcaacgact cttttgactgt cggtgcttgt   720
gacgccattt cattagtaga cggctttttc gattttgaag aaaagtacca gctgatcagc   780
gccaaaatca ccgtccctgc gccattgcct gaaacgattg aaaccaaggt caaagaacaa   840
gctcagctgc tctatcgtag tcttggtctt aaaggtcttg ctcgcatcga cttttttgtc   900
acggagcgag gagaactata cttgaatgaa atcaatacta tgccgggctt tacgagtcac   960
tcccgctatc ctgccatgat ggcagcggtc ggcttatcct atcaagaact actacaaaaa   1020
                                                                    1053
ctgcttgtct tagcaaagga ggaagtcaaa tga
```

```
        <210> 34
        <211> 699
        <212> DNA
        <213> Enterococcus faecium


        <400> 34
atgaatgaaa aaatcttagt ggttgatgat gaaaagaat tggccgactt agttgaagta    60
tatctgaaaa cgatggata taccgtttat aaatttata atggcaagga tgcactaaag    120
tgtattgaat ccgtggaact ggatttagcc atattggata tcatgcttcc ggatgtagac   180
```

```
gggtttcaga tctgccagaa aatccgggaa aagttttact tccctgttat catgctgaca      240
gcaaaagtgg aggacgggga taaaatcatg ggactgtccg tggcggatga ttatattaca      300
aagccgttta acccgctgga agtggttgcg agagtaaagg cgcagctgcg gcagtacatg      360
cggtacaagc agcccagctt aaagcaggag gctgaatgca cagaatacga tatcagaggg      420
atgacaatca gcaagagcag ccataagtgt atcctgtttg gaaaggagat tcagctgacg      480
ccaacggagt tttcgattct ttggtatctg tgcgagcgtc agggtacggt tgtttctacg      540
gaggaattat ttgaggcagt atggggtgaa cggttttttg acagcaataa tactgtgatg      600
gcgcatatcg gcggctccg ggagaaaatg aaggaaccgt caagaaatcc gaaatttata       660
                                                                      699
aaaactgtgt ggggagtggg atataccatt gaaaaatag
```

```
    <210> 35
    <211> 1146
    <212> DNA
    <213> Enterococcus faecium


    <400> 35
ttgaaaaata gaaataaaac cagtcatgaa gatgactatt tacttttaa aaacagattg      60
tccgttaaaa tactgcttat gatggtatat tccattctga ttattgcggg tgtttatctg      120
tttatcttaa aagataattt tgcaaatgtc gtggtagcca tttagacag ctttatctat        180
catgatcggg atgaggcggt ggctgtttat ctgagaacct ttaaggcgtc tgagatatgg      240
cttttcctga tagcggttat gggcgtgttt tttatgatct tccgccgtta tctggacagt      300
atttcaaaat attttaagga gatcaaccgg gggatcgata ctttggtgaa tgaggatgcc      360
aacgatattg ggctgcctcc ggagttggct tcgaccgaaa gaaaaatcaa ttccatacgg      420
cataccctga cgaaacggaa aacggacgct gagcttgcag agcaaaggaa aaacgatctt      480
gtcatgtatc tggcccatga cctgaagacc ccgcttccat cggtcatagg atatttgaac      540
ctgttaaggg atgagaatca gatttccgag gaacttaggg aaaaatattt gtccatatca      600
ttggataagg ctgagcgtct ggaagaactg attaatgagt tttttgaaat tacgaggttt      660
aatctttcaa acatcacgct tgtgtacagc aaaatcaatc tgacgatgat gctggaacag      720
ctggggtatg agtttaagcc gatgctggcc gggaaaaatc tgaaatgtga atttgatgtt      780
cagccagaca tgatgctgtc ctgcgatgcc aacaagctgc agcgggtctt cgataatgtg      840
ctgagaaatg ccgtcagcta ctgćtatgag aataccacca ttcgggtgaa agccaggcag      900
accgaagacc atgtactcat caaaatcata aacgaagggg atacgattcc tggggagaga      960
ttggaaagaa tctttgagca gtttttaccgc ctggatgtat ctcgaagctc aagtaccggc     1020
ggggccggtc tggggcttgc cattgcaaaa gagattgtgg aactgcacca tggacagatc      1080
actgcccaca gcgaaatgg tatcaccagt tttgaggtta cattgcccgt cgtaggaaaa       1140
                                                                      1146
tcgtaa
```

```
    <210> 36
    <211> 1071
    <212> DNA
    <213> Enterococcus faecium


    <400> 36
atgatggaat atcaaaacaa taatggaaac tatgacaaaa ggaatcgtag aaaagccaaa      60
aaaagaaaat tgctttttta cagggctgca tgtgtcacac tttgtttgct cattgtttct      120
gtaatctttg gagttgtgca ttttttaggg gagagtaaag atcccggcct tttatccaaa      180
gaaaacacaa aaacagacaa gaactattcg tggcttaccg acgatcagaa tgaggcagta      240
ccctcagttc cagagccagc catatccgac caggctaaca aaatttcggt aaatatcaca      300
gcggcaaacg ccattgtaat gaataaagac acaaatgagg tattgtacca gaaaaaaagc      360
acagccaaaa ttgcgccggc cagcactgct aagatgatta tggctttgac agcacttgac      420
tattgttccc cggaggatga aatgaaagta ggtgcggaga ttggaatgat tcaaagcgat      480
tcgtcaaccg catggcttat gaagggtgat acactgactg tcagacagct cctgattgcc      540
cttatgcttc cgtccggcaa tgatgcagcc tatacccttg cagtcaatac cggaaaggct      600
attgcaggtg ataacagcct gaccagtcag caagcgattg aagtattcat ggataaggta      660
aatgaaaaag ccgtggccct tggcgccaca aactcgaaat ttgtagctcc ggatggatat      720
gatgccgaag ggcagtatac tacagcttat gaccttgcta tcattgcaaa agcatgtttg      780
gacaatccta tcatttcgga gattgtagcg agttattcat cctatgaaaa atggtcaaac      840
ggaagagagg tcacttacaa caattccaat gagcttctcg atccgaacag tccctattac      900
cgtccggagg ttatcggttt gaaaacagga accagcagtc ttggcggcgc atgtattgtt      960
tctgcagcgg tgatggacgg agaaacctat atctgtgtag ttatgggttc tacaaaggaa     1020
                                                                      1071
agcaggtttc aggacagcgt tgatatttta gataaaatca aagcccagta a
```

<210> 37
<211> 969
<212> DNA
<213> Enterococcus faecium

<400> 37

```
atggagaaaa taatagacat aactgttttt ggctgcgagc cagacgaaat ggaggttttt    60
caaaagattt cttatgagct tggtgttaca gccacactca taaaagattc tatatcagaa   120
agcaatgctg gattagctaa tggatgccgg tgtgtaagcg taagccataa agcggagcta   180
tcagaaccga ttcttcttgc gctaaaaaat gcaggggtaa aatatatcag tacccggagc   240
attggtttta accatattga tatacaggcg gctgggttac tgggtatggt tgttggcaca   300
gtagaatact cgccgggaag tgtggccgat tataccgtca tgctgatgct tatgctgatg   360
cgtggcacaa agtcgattct gcgtgaaacc cagaggcaga attattgcct gaatgacctg   420
cgcggaaaag aactgcggga tatgaccgtg ggtgtgttag gaactgggcg aatcggacag   480
gcagtcatgg agcgcctgga gggattcggt tgtaaggtat tggcgtatga ccgaaatcaa   540
aaagcaggag cagactatgt ttcgtttcat gaactgctga aaaaaagtga cattgttaca   600
ctgcatatcc cgttggcgga ggatacccgc catatgattg ctatgaaga gctggaaatg   660
atgaaggaag aggcgcttct gatcaataca gggcggggcg ctttagtgga taccgcagca   720
ttggtagaag cattaaaagg acagaaaatc ggcggcgccc tggatgtttt ggaaggcgaa   780
gaaggtatct tttaccatga ctgcacccaa agaagaatag aacatccttt cctgtcggtc   840
ctgcagggaa tgccgaatgt cattgttacg ccgcacacag cctatcatac ggaacgggtg   900
ttggttgaca cggtcagaaa tactattaga aattgtttga attttgaaag gagtctggga   960
aatgtttag                                                           969
```

<210> 38
<211> 1032
<212> DNA
<213> Enterococcus faecium

<400> 38

```
atgtttagaa ttaaagttgc agttctgttt gggggctgtt cagaggaaca taatgtttcg    60
ataaaatctg cgatggagat tgccgcaaac atagatacaa aaaaatatca gccttattat   120
attggaatca caaaatccgg cgtttggaaa atgtgtgaaa aaccttgttt ggagtgggaa   180
caatatgcgg gggatccggt tgttttttcg ccggacagaa gtacgcatgg tctgctgata   240
caaaaagaca aagggtatga aatccagcct gtggatgtgg tgtttccgat gattcatggc   300
aagtttgggg aggatggctc catacaaggc ttgcttgaat tgtcaggcat tccgtatgtg   360
ggatgcgata ttcaaagctc cgtgatctgc atggataagg cgcttgcata taccgttgtg   420
aaaaatgcgg gtatcactgt gcctgggttc cggatccttc aggaggggga tcgcctggaa   480
acggaggatt tcgtatatcc cgttttgta aagcctgccc gttccggctc atcctttggc   540
gtaaacaagg tatgcaaggc agaagaactg caggcagcaa tcgaagaagc aagaaaatat   600
gacagcaaga ttttgattga agaggccgtt accgggagtg aggtaggctg cgccatactg   660
ggaaacggaa atgatctcat ggctggcgag gtggatcaga ttgagctgag acacggcttt   720
tttaagattc atcaggaagc acagccggag aagggatctg aaaatgcagt catccgagtt   780
ccagccgcct taccggatga ggtaagagaa cagattcagg aaacggcaat gaagatttac   840
cggatacttg gctgcagagg attggcccgc attgacctgt ttttgcggga ggacggttgc   900
attgtgctga atgaagtgaa taccatgcca ggtttttactt cctacagccg ctatccccgc   960
atgatgacag cagccggttt tacgctttct gaaatactgg atcgcttgat tgaactttca  1020
cttaggaggt aa                                                      1032
```

<210> 39
<211> 609
<212> DNA
<213> Enterococcus faecium

<400> 39

```
atgaaaaaga actttgcctt tttagatgaa atgattcccg ggatccgatg ggatgccaaa    60
tatgccacct gggacaattt caccgggaaa ccggtagacg gatacatggt aaaccgtgtt   120
atgggaacga aggagctggg agttgctttg cgtaaggctc agaagatggc ggagaagcta   180
ggatatggtt tgctcttatg ggacggctat cgcccccagt gcgcagtgaa ttgtttttctg   240
aattgggctt cccaaccgga agacaatctg acgaaaaagc gttactatcc aaatatcaaa   300
aggaatgaga tggttgcgaa ggggtatgtg gcctcacaat ccagccacag ccgtggaagt   360
acggttgacc ttacaatttt tcatttgaat agcggtatgc ttgttcctat gggtggagat   420
```

```
tttgacttta tggatgaacg gtcacaccat gccgcaagcg gtctgagcga agaagaatca    480
aaaaaccggc agtgcttgcg ttatatcatg gagagtagcg gatttgaagc ctatcgttat    540
gaatggtggc attacgtctt ggcggacgag ccatacccgg atacatattt tgatttttgc    600
                                                                     609
attgcctag
```